

WHAT IS CLAIMED IS:

1. A hose of a multilayer wall for conveying a hydrogen fuel in a fuel-cell vehicle, the hose comprising an innermost layer of a rubber material cured by an agent not containing any metal oxide and/or sulfur, and a hydrogen gas-impermeable metallic barrier layer formed in the wall surrounding the innermost layer.

2. The hose according to claim 1, wherein the rubber material is resistant to hot water.

3. The hose according to claim 1, wherein the rubber material is resistant to acid and/or alkali.

4. The hose according to claim 1, wherein the rubber material has an electric resistance of at least $10^6 \Omega \cdot \text{cm}$.

5. The hose according to claim 1, wherein the rubber material is selected from among ethylene-propylene-diene terpolymer rubber (EPDM), ethylene-propylene copolymer rubber (EPM), silicone-modified EPDM, silicone-modified EPM, fluororubber (FKM) and butyl rubber.

6. The hose according to claim 1, wherein the rubber material is EPDM or EPM cured by a peroxide without any zinc oxide.

7. The hose according to claim 1, wherein the barrier layer is a metal laminated layer formed by having a metal foil held between two resin films.

8. The hose according to claim 7, wherein the laminated

layer is formed by at least a single fold of spiral winding or longitudinal lapping of a tape of a laminated sheet formed by having the foil held between the resin films.

9. The hose according to claim 8, wherein the foil has a thickness of 7 to 50 μm , while the resin film has a thickness of 5 to 200 μm .

10. The hose according to claim 1, wherein the barrier layer is in contact with the innermost layer.

11. The hose according to claim 1, wherein the barrier layer forms a part of the wall surrounding the innermost layer and is surrounded by a fiber-reinforced layer.

12. The hose according to claim 1, wherein the multilayer wall sequentially comprises the innermost layer, the barrier layer, an intermediate rubber layer, a fiber-reinforced layer and an outer rubber layer.

13. The hose according to claim 12, wherein at least said innermost layer and said barrier layer, or every two adjoining layers are bonded to each other with an adhesive strength of at least 5 kgf/inch.

14. The hose according to claim 12, wherein the intermediate rubber layer is of butyl rubber.

15. The hose according to claim 12, wherein the outer rubber layer is of a material having an electric resistance of at least $10^6 \Omega \cdot \text{cm}$.

16. The hose according to claim 1, wherein the hose as a whole

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has an electric resistance of at least $10^6 \Omega \cdot \text{cm}$.

17. The hose according to claim 1, wherein the hose has its wall treated with an extraction medium under heat aging conditions so that any matter to be dissolved therefrom may be removed by extraction therefrom prior to use of the hose.

product by process

18. The hose according to claim 1, wherein the wall has an inside diameter of 5 to 50 mm.

19. The hose according to claim 1, wherein the wall has a pair of ends each connected with a stainless steel pipe.

20. The hose according to claim 19, wherein toward each end thereof, the wall has an inner surface treated for adhesion to the outer surface of the stainless steel pipe and the inner and outer surfaces are fastened by a sleeve.

Size
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product by process

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